

RockStudy Music

The Theory Behind Rock & Pop



Topic 2 - Part B

Key Change & Modulation

By Lachlan Wilson

www.rockstudymusic.com

Key Change & Modulation

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Overview

Rock and roll music developed throughout America from the middle of the twentieth century onwards. Young adults, then known as teenagers, looked to identify their contemporary status by way of specific clothing fashion, young role models, who were often film actors such as James Dean and Marlon Brando, and most importantly, a new musical style that projected optimism, excitement, and rhythmic vitality.

The emerging rock and roll musician was inevitably young, enthusiastic, and musically untrained. However by varying and adapting much of the musical language of previous styles, particularly Rhythm and Blues and Country music, a new form of music evolved, one that spoke clearly to the young people of America and subsequently throughout the whole world. This evolution has continued to develop over several decades thereby influencing the many stylistically variations within the genre.

Furthermore, many rock musicians have developed considerable technical skills without any real understanding of music notation and how the theoretical aspect of musical language relates to performance. There can be little doubt that a thorough understanding of music theory can further enhance performance and compositional skills within the musician, which ultimately leads to a more overall proficient musical artist.

About the Author

Melbourne based musician Lachlan Wilson was drawn to Rock and Roll music from a very young age, and this involvement has since spanned many decades. Whilst also embracing many other musical styles, it was the initial impact of Rock music that has always remained a strong influence throughout his musical career.

As a performer Lachlan has played saxophone and flute in several groups and ensembles throughout Australia dating from the 1960's, through to more contemporary times.

The desire for a more comprehensive understanding of music theory saw him undertake further study where he completed a Bachelor of Music at the University of Melbourne, later leading to additional Post Graduate studies in both composition and education.

Lachlan has subsequently taught harmony and counterpoint at tertiary level for more than 20 years in contrasting musical genres ranging from the Renaissance era through to contemporary non-tonal theoretical practises.

During these educational sessions, the energy and authority of the musical language associated with Rock and Pop music has formed the basis of these instructive modules.

User's Guide

The headphone symbol lets you know that there is listening material available via the links provided.



The vinyl record symbol lets you know when a specific piece of music is being discussed. The title, artist and composer will be listed here.



Analysis and notation examples are indicated by the image of a treble clef.



Generally notation examples are designed to reinforce the audio examples and offer support for different levels of music theory knowledge. Examples include:

The chord symbol or name. Amaj, Dmin, etc.

The chord's functional name: Tonic, Dominant, Mediant, ect.

The chord's function, represented as a Roman Numeral: I, ii, iii, IV, V etc.

It should be noted that in this style an upper case numeral indicates a major chord, and a lower case numeral indicates a minor chord. Additional symbols provide further information such as o denotes that the chord is a diminished triad and the + sign denotes that the chord is an augmented triad.

The musical notes, key signature and time signatures will also be layed out across a musical staff.

Additionally each topic will also have its own playlist available on Spotify. These playlists include the original artist version of the songs examined as well as extra listening examples related to the topic. Click [here](#) to listen to Spotify playlist for this book.

Go to <https://www.rockstudymusic.com/episode-2-keychange-and-modulation> for details.

Purchasing



If you wish to develop an educational version for use in the classroom, please contact the Victorian Music Teachers Association.

Go to <https://www.vmta.org.au/online-store/rockstudy-music-online-theory-courses/>

Introduction

The power of key change can be achieved by different methods and in book 1, Key change and Modulation part 1; tonal shifts by Juxtaposition were introduced and examined. As that book uncovered, abrupt keychanges by Juxtaposition are quite apparent and dramatic to the listener.

During book 2, Key change and Modulation part 2; the focus will be upon examining a more seamless and subtle method of changing keys, Pivot Chord Modulation. This type of modulation began in the early Baroque and Classical eras and can also be found in Pop and Rock music today. Pivot chord modulation involves the use of a common chord that serves as a pivot to connect two different key areas, thereby creating a smooth and unified transition between tonalities.

Through detailed musical examples and analysis, we delve into the different techniques and approaches used by some of the greatest songs in rock and pop music, providing insights and inspiration for aspiring musicians and songwriters. Whether you are a beginner, looking to deepen your understanding of music theory, or an experienced musician looking to expand your musical vocabulary, this book is the ultimate guide to pivot chord modulation in Rock and Pop music.

Podcast

If you prefer to listen to this content as a podcast, please head over to <https://www.rockstudymusic.com/episode-2-keychange-and-modulation> where you will find links to your favorite podcast services

To see all our available podcast episodes and ebooks, head over to <https://rockstudymusic.com/episodes-and-books>

Remember to subscribe, like and share to keep up to date with our podcasts and to help us spread the word.

Playlists

The Spotify playlist for this book can be found by clicking [here](#). or heading over to our website <https://www.rockstudymusic.com/episode-2-keychange-and-modulation> .

Pivot Chord Modulation

During book 1 the focus was directed towards key change by juxtaposition. This type of key alteration has been the more common method of moving tonal areas in Rock and Pop music. In book 2 the subject of key change will be expanded to include modulation through a pivot chord. This type of tonal shift allows smooth transition between contrasting keys.

Whilst this type of modulation is less common in the style under discussion, it is nevertheless worth exploring the possibilities that may present themselves to the songwriter who wishes to subtly modulate to one or more tonal areas during a song.

To successfully achieve this type of key change, the music requires the use of what has been traditionally labelled as a "pivot chord". This refers to a chord that is present in both the existing key and the new key to which the composer wishes to modulate to. This process requires identifying the diatonic chords available in each of the relevant keys. Simply put, diatonic chords are those harmonies that can be constructed using the major or minor scale applicable to the key signature. The use of diatonic chords in music will therefore establish and reinforce the tonal centre of the piece. For instance the diatonic chords, that is to say the harmonies created by the relevant scales, in the different keys of both A major and D major are as follows.

The image displays two rows of musical notation for diatonic chords. The first row shows chords in the key of A major: I (A), ii (Bm), iii (C#m), and IV (D). The second row shows chords in the key of D major: V (E), vi (F#m), and vii° (G#°). Each chord is represented by a grand staff (treble and bass clefs) with a 4/4 time signature. Roman numerals are placed below the bass clef, and chord names are placed above the treble clef.

In the key of D major

The image displays two rows of musical notation for diatonic chords in the key of D major. The first row shows chords: I (D), ii (Em), iii (F#m), and IV (G). The second row shows chords: V (A), vi (Bm), and vii° (C#°). Each chord is represented by a grand staff (treble and bass clefs) with a 4/4 time signature. Roman numerals are placed below the bass clef, and chord names are placed above the treble clef.

Notice that several chords are present in both keys, it is therefore possible to smoothly shift from the tonal centre of A major to D major simply by continuing on in the new key after including one or more of these pivot chords in the progression. These chords are A major, D major, B minor, and F# minor.



Pivot chord modulation, tonic chord becomes dominant chord in the new tonality

Example "Happy Xmas (War is Over)", John Lennon/Yoko Ono.

An example of this type of modulation, specifically moving the tonality from A major to D major, can be found in John Lennon's "Happy Xmas (War is Over)".



Click the link to listen to Happy Xmas (War is Over) 0:00-0:42



In the A section of this piece the tonal centre effortlessly shifts from A major to D major by way of a pivot chord after the first 4 bars using the chord common to both keys of the A major triad. The harmonic progression, albeit somewhat embellished, for the first 4 bars of the A section appears as follows.

♩ = 52

	A	Bm	E	A
Rhythm Guitar				
	I	ii	V	I
Bass Guitar				

This tonic A major chord then acts as a pivot chord, now becoming the dominant V chord in the new key of D major.

	A	→	D
	(Tonic chord in A major)		(Tonic chord in D major)
bar 4			bar 5
	I		I
			(key signature implied)
Bass Guitar			

The progression then continues with the following harmonic progression.

Note that similar root note movement in the progression is evident in both key areas, further adding to the cohesion of the harmonic movement.



Continue listening from 0.42 to 1.03

As the song continues into the second part of the A section the music remains in the key of D major until the final cadence. This is then followed by an additional dominant chord that turns the music back to the original key of A major where the piece repeats its modulation pattern during each section. This device can be referred to as a Prepared Dominant Chord Movement. This device, commonly referred to as a “secondary dominant”, may also be regarded as “prepared dominant” chord movement resolving to a following tonality in subsequent more complex examples.



Pivot chord modulation, existing sub-dominant chord becomes the new tonic.

Example “You’re the Voice”, Chris Thompson/Maggie Ryder/Andy Qunta/Keith Reid.

Arguably the most popular song in Australian Pop history is the John Farnham anthem-like version of “You’re the Voice” written by the English song writing team of Qunta, Reid, Ryder, and Thompson.



Click the link to listen to “You’re the Voice” 2.32:3.15



This song makes use of pivot chord modulation to move seamlessly from the tonality of F major to the closely related key of Bb major for the instrumental bagpipe solo based upon the chorus, smoothly returning to F major for the vocal re-entry.

In this case the pivot chord is Bb major, which functions as the IV chord in F major whilst also being the tonic chord in Bb major. The modulation is hardly noticeable and extremely well executed. The most likely reasons for this tonal shift is to effortlessly introduce additional interest to the music and to accommodate the restricted register and scale characteristics of the bagpipes.

bar 34 (on repeat) bar 35

Bb (Subdominant chord in F major) Eb (Subdominant chord in Bb major) Bb (Tonic chord in Bb major)

IV bVII I

Instrumental section begins

bar 42 bar 43

Bb (Tonic chord in Bb major) Ab (bVII chord in Bb major) Bb (Subdominant chord in F major)

IV bVII IV

Vocal re-entry at original pitch



Pivot chord modulation in a minor key.

Original Example

Lachlan Wilson

Here is an original exercise in order to demonstrate pivot chord modulation as it may be found in a minor key, remembering that the diatonic harmonies created in the Rock and Pop style will be drawn from the natural minor scale, rather than the harmonic minor scale which is mainly used in traditional western music.

In this instance the VII chord in C minor, B \flat major, can also be found functioning as the VI in D minor, and has been used as the pivot chord for modulation in the 4th bar.

The use of an A note in the bass during bar 5 has been added to provide a smooth descending line.



Click the link to listen to the example.



$\text{♩} = 100$ (Pivot chord)

5 Dm/A Gm Am Dm

Significantly, upon listening, the melodic line appears to indicate that the new key area seems to be lower, when in fact the tonal shift has actually been raised by a whole tone.

Exercises & Activities
KeyChange & Modulation



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Go to

<https://www.vmta.org.au/online-store/rockstudy-music-online-theory-courses/>

Combination of Pivot Chord and Juxtaposition Modulation

The composition method of combining both pivot chord modulation and key change by juxtaposition has also been successfully used and has proved to be of great benefit during songs that incorporate several different sections in contrasting keys.



*Pivot chord modulation from verse to chorus.
Existing sub-dominant chord becomes the dominant in the new key.
Example. "Penny Lane", John Lennon and Paul McCartney*

An early example of this combination occurs in "Penny Lane" recorded in 1967 by the Beatles.



Click the link to listen to "Penny Lane" from 0:17-0:42



Each verse has been composed in the key of B major, whilst the early chorus's modulate by pivot chord down a whole tone to A major. The subdominant chord in B major, (E major), now becoming the dominant chord in A major.

This is quite an interesting shift, as modulating downward is far less common than an upward key change. The effect is rather seamless and also somewhat ambiguous due to a raised melodic line.

E (Verse) —————> A (Chorus)
IV (V in the key of A major) I (Tonic chord in A major)



*Enharmonic pivot chord modulation from verse to chorus.
Existing dominant chord becomes the subdominant in new key.*

Example “Chain Reaction”, Barry, Robin & Maurice Gibb

An excellent example can be found in the Pop song “Chain Reaction” written by the Bee Gees and recorded by Diana Ross in 1985.



Click to listen to “Chain Reaction”
from 0:19-1:00



In this case each section has been composed in differing keys. The verse is heard in the key of B major, which rises by a whole tone to Db major by way of a pivot chord for the chorus.

F# → Db

V (enharmonically IV in I (Tonic chord in Db major)

bar 28 bar 29

In this situation the Dominant V chord, F# major, is cleverly used enharmonically as the subdominant IV chord, Gb major in the key of Db major for the first 8 bars of the chorus.



Continue listening from 0.53 to 1.16



“Chain Reaction” continued
Juxtaposition key change at the chorus repeat using the existing dominant chord.

The repeating section of the chorus subsequently lifts by a further semitone to D major, however this time using a juxtaposition type shift before eventually resolving back to the second verse in the original key of B major.

$A\flat^7$ \longrightarrow D
 (Dominant V7 in the key of $D\flat$ major) (Tonic chord in D major)



Listen from 2.55 until the end.



“Chain Reaction” continued

Additional juxtaposition key changes using both prepared dominant and existing dominant chords.

Subsequent sections continue to abruptly change key by semitone eventually reaching an upper level key of E major.

PREPARED DOMINANT KEY CHANGE

$B\flat^7$ \longrightarrow $E\flat$
 (Prepared dominant chord, V7 of the key of $E\flat$ major) (Tonic chord in $E\flat$ major)

JUXTAPOSITION KEY CHANGE

$B\flat$ \longrightarrow E
 (Dominant V in the key of $E\flat$ major) (Tonic chord in E major)

Exercises & Activities
Keychange & Modulation



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Conclusion

Eventually the trained ear will become more and more aware of the role of key change and modulation, noting in particular at what structural point this occurs during the song, the interval of the shift, and the resulting effect it has upon the music. In fact the focused listener may eventually be able to anticipate the tonal shift prior to the actual event.

Listening Examples

Title. "Happy Xmas (War is Over)"
Songwriter. John Lennon/Yoko Ono
Recording artist. John Lennon

Title. "You're the Voice"
Songwriter. Chris Thompson/Maggie Ryder/Andy Qunta/Keith Reid
Recording artist. John Farnham

Title. "Original Exercise"
Songwriter. Lachlan Wilson
Recording artist. N/A

Title. "Penny Lane"
Songwriter. John Lennon/Paul McCartney
Recording artist. The Beatles

Title. "Chain Reaction"
Songwriter. Barry, Robin, & Maurice Gibb
Recording artist. Diana Ross